WHAT IS CLAIMED IS:

1. A chemical reaction apparatus comprising

a. a reaction support having a plurality of reaction sites upon a first surface thereof;

b. a first droplet generator for jetting first reactant droplets upon the first surface;

c. a second droplet generator for jetting second reactant droplets upon the first surface; and

d. control means for causing the droplets from each of the droplet generators, to impact upon preselected sets of said reaction sites.

2. The apparatus of claim 1 wherein said reaction support is porous.

3. The apparatus of claim 2 wherein the porous support comprises controlled pore glass.

4. The apparatus of claim 2 wherein the porous support comprises a porated solid.

5. The apparatus of claim 2 wherein the porous support comprises fibers having a substantially common axis normal to the first surface.

6. The apparatus of claim 2 wherein the porous support is an anisotropic membrane.

7. The apparatus of claim 1 wherein the support comprises a second surface substantially parallel with the first surface, the support being capable of transporting fluid contacting the first surface to the second surface of the support in a direction substantially normal to the first surface.

8. The apparatus of claim 7 further comprising a collection plate adjacent to the second surface.

9. The apparatus of claim 8, wherein said collection plate has a plurality of wells for receiving fluid transported through said support.

10. The apparatus of claim 1 further comprising additional droplet generators for jetting chemical reactant upon said first surface.

11. The apparatus of claim 1 wherein said control means is a digital computer.

12. The apparatus of claim 1 wherein at least one droplet generator is adapted for traversing over the first surface of the reaction support.

13. A chemical reaction apparatus comprising

a. a reaction support having a plurality of preselected reaction sites upon a first surface thereof;

b. a droplet generator for jetting droplets of chemical reactant upon the first surface;

c. a plurality of reactant reservoirs in fluid communication with said droplet generator;

d. control means for causing chemical reactants from selected ones of said plurality of reactant reservoirs to be jetted by said droplet generator upon preselected sets of said reaction sites.

14. The apparatus of claim 13 further comprising valve means for directing chemical reactants from said reactant reservoirs to the droplet generator in response to control signals from said control means.

15. The apparatus of claim 1 wherein said reaction support is porous.

16. The apparatus of claim 15 wherein the porous support comprises controlled pore glass.

17. The apparatus of claim 15 wherein the porous support comprises a porated solid.

18. The apparatus of claim 15 wherein the porous support comprises fibers having a substantially common axis normal to the first surface.

19. The apparatus of claim 15 wherein the porous support is an anisotropic membrane.

20. The apparatus of claim 13 wherein the support comprises a second surface substantially parallel with the first surface, the support being capable of transporting fluid contacting the first surface to the second surface of the support in a direction substantially normal to the first surface.

21. The apparatus of claim 20 further comprising a collection plate adjacent to the second surface.

22. The apparatus of claim 21 wherein said collection plate has a plurality of wells for receiving fluid transported through said support.

23. The apparatus of claim 13 further comprising additional droplet generators for jetting chemical reactant upon said first surface.

24. The apparatus of claim 13 wherein said control means is a digital computer.

25. The apparatus of claim 1 wherein the droplet generator is adapted for traversing over the first surface of the reaction support.

26. A method for synthesizing a chemical species comprising

a. identifying a plurality of reaction sites upon a first surface of a reaction support;

b. jetting upon a first set of said reaction sites, drops of fluid comprising a first chemical reactant species; and

c. jetting upon a second set of said reaction sites, drops of fluid comprising a second chemical reactant species.

27. The method of claim 26 wherein said reaction support is porous.

28. The method of claim 27 wherein the porous support comprises controlled pore glass.

29. The method of claim 27 wherein the porous support comprises a porated solid.

30. The method of claim 27 wherein the porous support comprises fibers having a substantially common axis normal to the first surface.

31. The method of claim 27 wherein the porous support is an anisotropic membrane.

32. The method of claim 26 wherein the support comprises a second surface substantially parallel with the first surface, the support being capable of transporting fluid contacting the first surface to the second surface of the support in a direction substantially normal to the first surface.

33. The method of claim 26 further comprising collecting fluid from the first surface on a collection plate adjacent to the second surface.

34. The method of claim 33, wherein said collection plate has a plurality of wells for receiving said fluid.

35. The method of claim 26 under control of a digital control means.

36. The method of claim 26 wherein said first and second sets are substantial identical.

37. The method of claim 26 wherein said synthesis is of an oligonucleotide.

38. A method for synthesizing a chemical species comprising

a. bonding an initial reaction fragment to a first surface of a reaction support, said first surface having a plurality of preselected reaction sites;

b. jetting upon a first set of said reaction sites a first chemical reactant species to effect a chemical reaction with the initial reaction fragment at the first set of reaction sites; and

c. jetting upon a second set of said reaction sites a second chemical reactant species to effect a chemical reaction with either

i. the initial reaction fragment at sites not in common with said first set of reaction sites, or

ii. the reaction product of the initial reaction fragment and the first chemical reactant at those sites which are in common with said first set of reaction sites.

39. The method of claim 38 further comprising

d. jetting upon a further set of said reaction sites a further chemical reactant species, which may be the same as or different from any prior chemical reactant species, to effect a chemical reaction with either

i. the initial reaction fragment at sites not in common with any prior set of reaction sites, or

ii. the reaction product of the initial reaction fragment and the additional chemical reactants delivered to sites of said further set.

40. The method of claim 39 performed iteratively.

41. The method of claim 38 further comprising recovering the chemical synthesized.

42. The method of claim 38 wherein said synthesis is of oligonucleotide.

43. A chemical reaction assembly comprising a reaction support having first and second surfaces and being capable of transporting fluid contacting the first surface to the second surface of the support in a direction substantially normal to the first surface, and a collection plate adjacent to the second surface having a plurality of wells for receiving fluid transported through said support.

44. A chemical reaction apparatus comprising

a. a shaped body having first and second surfaces;

b. said body having an array of reaction wells therein in fluid communication with each of said first and second surfaces; and

c. porous reaction support in said reaction wells.

45. The apparatus of claim 44 further comprising

d. a collection plate adjacent the second surface of the shaped body, said collection plate having a plurality of collection wells in an cooperative array with the array of said reaction wells.

46. The apparatus of claim 44 wherein said reaction support has a plurality of reaction sites defined thereupon.

47. The apparatus of claim 44 wherein the reaction support is porous.

48. The apparatus of claim 44 wherein the porous support comprises controlled pore glass.

49. The apparatus of claim 44 wherein the porous support comprises a porated solid.

50. The apparatus of claim 44 wherein the porous support comprises fibers having a substantially common axis normal to the first surface.

51. The apparatus of claim 44 wherein the porous support is an anisotropic membrane.

52. A method for chemical synthesis comprising

a. providing a reaction support having first and second surfaces;

b. transporting to selected sites on the first surface of said reaction support a plurality of chemical reagents, the chemical nature, amount and sequence of which is predetermined and under the control of a control means to effect synthesis of a chemical species;

c. transporting said chemical species through the reaction support to the second surface thereof;

d. providing a collection plate having a plurality of collection wells adjacent to said second surface such that the chemical species is recovered in a well or wells.

53. The method of claim 52 further comprising challenging said chemical species in an assay.